



# HYDRELIO®

Optimized Floating Structure for Solar Plant



# Solar Energy Floating Solutions Experts

The collaboration between the **first French green IPP** and the **pioneer in the floating solar industry** brings to market the most advanced, proven and competitive floating solar solution



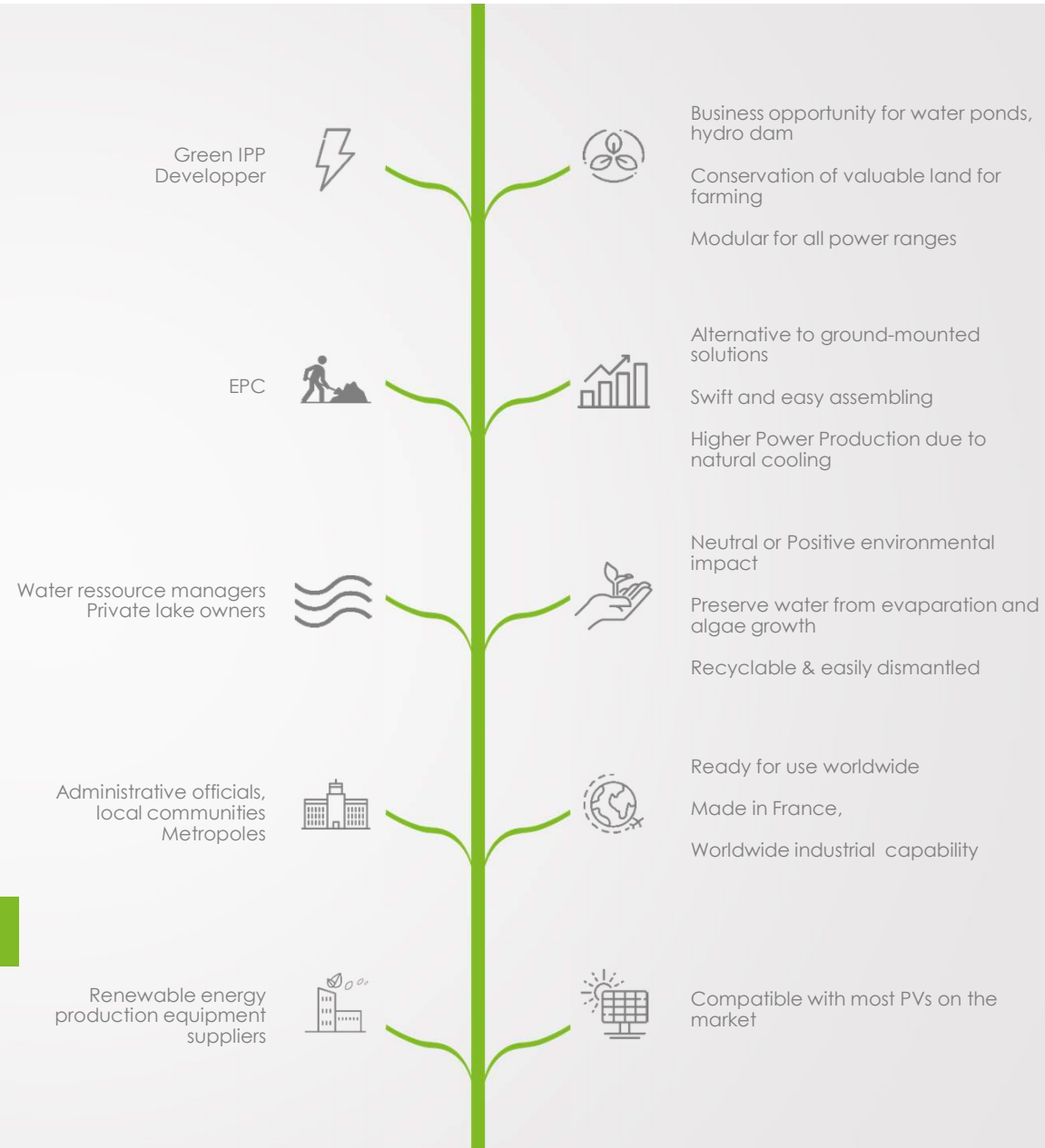
Akuo Industries is the exclusive distributor of Hydrelío® by *Ciel et Terre* for French metropole and Overseas Territory

# HYDRELIO®

Optimized Floating Structure for Solar Plant



Value water bodies with a competitive and proven solution



# HYDRELIO®

Innovation at a glance

HYDRELIO®

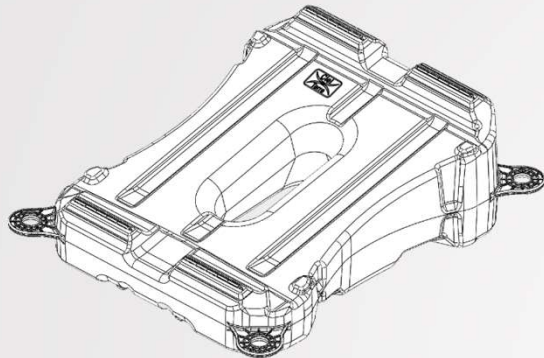


- Modular for all power ranges and electrical configurations
- Enhanced power production due to cooling effect
- Lab-tested and field-proven
- Compatible with drinkable water
- Neutral or positive environmental impact
- Resilient to extreme wind conditions
- Classical anchoring devices
- Simple assembling, no tools or heavy machinery needed
- Compatible with energy storage solutions and energy management systems
- Compatible with most PV Equipment

## Features

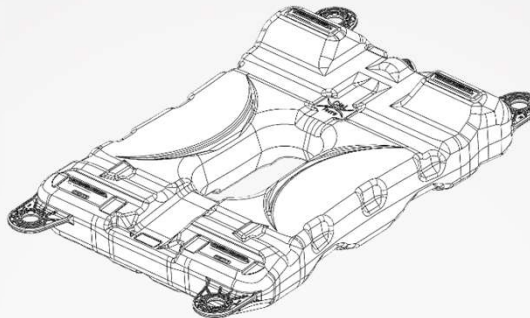
<b>PV Compatibility</b>	Framed or Dual glass
<b>Drinkable water</b>	Tested BS:6920:2000 compliant
<b>Inverter</b>	On land or on water
<b>Service Life</b>	More than 20 years
<b>Wind Resistance</b>	Up to 210 km/h
<b>Water flow Resistance</b>	Up to 1m/s
<b>Wave Resistance</b>	Up to 1 meter
<b>Temperature Resistance</b>	Resistant to temperatures between -10° and 50°
<b>Track Record</b>	+300 MWp worldwide
<b>Assembly time</b>	1 kW / pers / hour

# Configurations



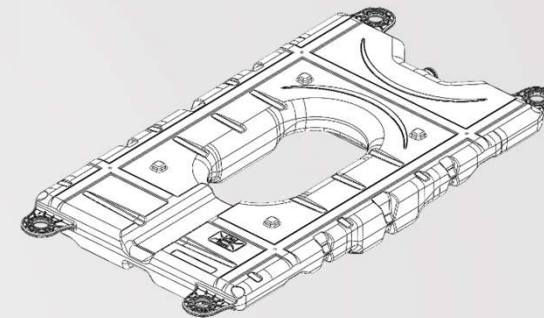
## HYDRELIO® Classic

- Standard tilt of 12°, directly integrated into the float by the blow-molding process.
- Adapted to very complex pond shapes.
- Easy operation and maintenance.
- Modified fixing systems available allowing 15° and 22° tilt options.
- Compatible with comfort, eco and dual-orientation configurations.



## HYDRELIO® Equato

- Fixed tilt of 5°, directly integrated into the main float by the blow-molding process.
- Designed for equatorial areas optimizing the daily yield.
- Lighter anchoring.
- Most cost-effective transport solution.
- Optimized for the 4-in-a-row configuration.

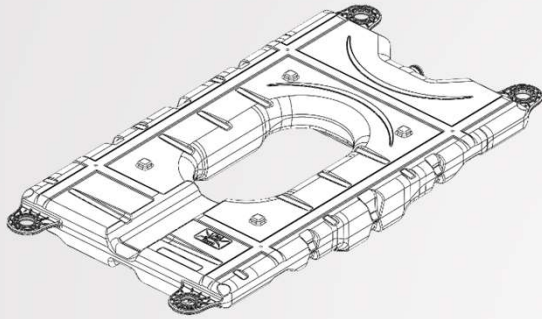


## HYDRELIO® Air

- Flat float equipped with a simple racking system for module support and tilt.
- Specific design to allow air to flow around the modules.
- Standard tilt of 11°, Multiple tilts available.
- Cost-effective transport solution.
- Optimized for the 4-in-a-row configuration.
- Maximum PV Size : 2005 mm x 1000 mm
- Pitch : 1,44 meter

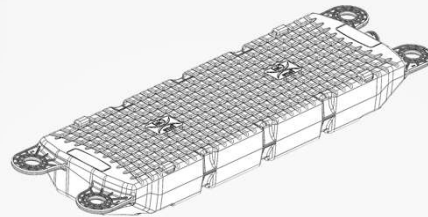
A solution **customizable** to fit your project  
Engineering capabilities to support your technical team **from feasibility study to commissioning**

# HYDRELIO® AIR dimensions



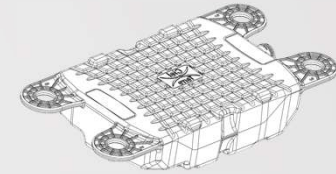
Main Float

Dimensions  
Main Float 1440 mm x 740 mm x 148 mm



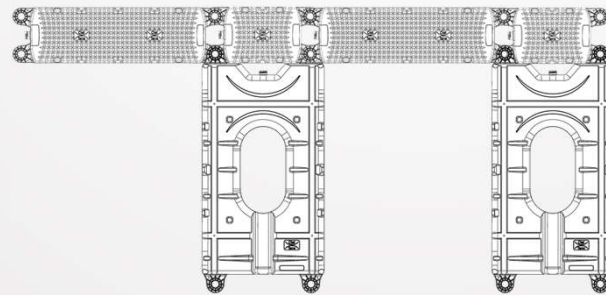
Long Float

Dimensions  
Long Float 1335 mm x 267 mm x 150 mm



Small Float

Dimensions  
Small Float 740 mm x 267 mm x 150 mm





# Construction

Installation & Anchoring System



Straightforward  
installation

NO heavy or specific  
toolings



2,500 Anchors installed



80 Meters  
Depth, Max Tested



30 Meters  
Water Level Variation, Max  
Tested

Smooth and  
quick  
deployment



# Construction

Installation & Anchoring System

## Site Preparation



Launch platform installation



Anchoring installation



Storage & work area preparation

## Floating Structure Assembly



PV installation on floats



Structure assembly and PV cabling on platform



Substructure launching on platform



Sub-structure offshore assembly

## Connection to the Grid



Junction Box Cabling



Cabling to the shore



# AKUO's Services

Support & Services

Design and development



**Our** Team adapt the floating structure layout according to the specific features of **YOUR** project.

- Detailed design of the structure and quantities of equipment needed
- Anchoring feasibility & verification

Production and Delivery



**We** produce the structure to satisfy **YOUR** planning

- Delivery on site
- Logistic follow up

Construction



**Our** experts assist the structure assembling through trainings prior to the construction

Operation



**We** support **your** team after the completion of the floating PV plant

- Maintenance training and Solutions

**Our** expert team brings you support throughout the life of your project

# HYDRELIO®

AKUO INDUSTRIES Project References



**O'MEGA 0**  
18 kWp prototype  
Piolenc, France

HYDRELIO® Classic



**Illkirch**  
40 kWp  
Illkirch, France

HYDRELIO® Classic



**O'MEGA 0.2**  
28 kWp  
Piolenc, France

HYDRELIO® Air



**Happy Valley**  
100 kWp  
Adelaide, Australia

HYDRELIO® Air



# O'MEGA 1 - France

<b>Project Name :</b>	Omega 1
<b>Location :</b>	Piolenc, Vaucluse, France
<b>Developer :</b>	AKUO ENERGY
<b>Power :</b>	17 MW
<b>PV modules :</b>	47040 modules TrinaSolar 72cell
<b>Anchoring :</b>	Lake-bottom deadweight anchoring
<b>EPC :</b>	Bouygues Energies & Services
<b>Commissioning Date :</b>	April 2019
<b>Structure Assembly Time :</b>	4 months
<b>Annual Energy Yield :</b>	23 GWh , 8000 households

OMEGA 1 is the first large scale floating solar plant in France and the biggest in Europe. It is installed in a quarry lake in the south of France.

O'MEGA 1 will also be one of the first projects compliant with the Ferme d'Akuo® label. This label combines the production of green energy with a local positive impact through agro-ecology, education and recovery of ecosystems.



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